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| 10/663,283      | 09/16/2003  | Akiyasu Kaneko       | 3557G-000041        | 3217             |

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EXAMINER

DOUYON, LORNA M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1751

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/663,283

Applicant(s)

KANEKO, AKIYASU

Examiner

Lorna M. Douyon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2 pages.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

*Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Thenappan et al. (US Patent No. 6,010,997), hereinafter “Thenappan ‘997”.

Thenappan ‘997 teaches a composition consisting essentially of from about 89-99 wt% 1-bromopropane (n-propyl bromide), 1-11 wt% nitromethane, and 1-10 wt% methyl-2-propanol (see Example on Table 1 under col. 4, lines 34-39; claim 1). Thenappan ‘997 teaches the limitations of the instant claims. Hence, Thenappan ‘997 anticipates the claims.

3. Claims 1, 2, 4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Thenappan et al. (US Patent No. 6,048,832), hereinafter “Thenappan ‘832”.

Thenappan ‘832 teaches a composition consisting essentially of 50-99 wt% 1-bromopropane, 1-50 wt% HFE-7100 (a fluorine-based solvent which is 4-methoxy-1,1,1,2,2,3,3,4,4-nonafluorobutane) and 0.4-11.0 wt% nitromethane (see col. 1, lines 60-61; Example on Table 1 under col. 4, lines 60-62). Thenappan ‘832 teaches the limitations of the instant claims. Hence, Thenappan ‘832 anticipates the claims.

4. Claims 1, 4, 6, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Doyel et al. (US Patent No. 6,689,734), hereinafter "Doyel".

Doyel teaches chemical solvating, degreasing, stripping and cleaning agents (see abstract). Doyel teaches a binary composition consisting of 84-99.9 weight percent n-propyl bromide (NPB) and 0.1-16 weight percent nitromethane (see col. 11, lines 3-4). Doyel also teaches a binary composition consisting of 94 weight percent NPB and 6 weight percent nitromethane (see col. 11, lines 42-43). In Example 75, Doyel teaches a ternary composition consisting of 75 wt% 1-bromopropane, 20 wt% HFE-7100 and 5 wt% n-methyl pyrrolidone (see Table 3 under cols. 17-18). Doyel teaches the limitations of the instant claims. Hence, Doyel anticipates the claims.

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 5, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyel as applied to the above claims.

Doyel teaches the features as described above. In addition, Doyel teaches that the agents are cleaning and solvating mixtures of brominated compounds like 1-bromopropane and 2-

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bromopropane with highly fluorinated compounds like HFE-7100 and/or other agents like pyrrolidones and nitromethane, among others (see abstract; col. 5, lines 55-56; col. 6, lines 33-35; col. 11, lines 3-4). In Table 1 under cols 13-16, Doyel provides proportions of the brominated compounds with fluorinated compounds and other materials. Doyel, however, fails to specifically disclose a composition comprising 1-bromopropane or 2-bromopropane and nitromethane with fluorinated compounds or n-methyl pyrrolidone, or a composition comprising 1-bromopropane or 2-bromopropane and n-methyl pyrrolidone having a content from 10-85 wt%.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate fluorinated compounds or n-methyl pyrrolidone to a composition comprising 1-bromopropane or 2-bromopropane and nitromethane because Doyel teaches that brominated compounds are mixed with fluorinated compounds and other agents like pyrrolidones, and to optimize the proportions of the n-methyl pyrrolidone through routine experimentation for best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are considered cumulative to or less material than those discussed above.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lorna M. Douyon whose telephone number is (571) 272-1313. The examiner can normally be reached on Mondays-Fridays from 8:00AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Lorna M. Douyon*  
Lorna M. Douyon  
Primary Examiner  
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